

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE REMOVAL OF AN EXISTING FLAG IN THE AIR (FITA) TRAFFIC SIGNAL AT MD 45 (YORK ROAD) AND HEREFORD HIGH SCHOOL MAIN ENTRANCE IN BALTIMORE COUNTY AND THE INSTALLATION OF A NEW FITA AT MD 45 AND HEREFORD HIGH SCHOOL ENTRANCE 550 FEET NORTH OF THE MAIN ENTRANCE. THIS PORTION ALSO INVOLVES THE REMOVAL OF AN EXISTING HAZZARD IDENTIFICATION BEACON (HIB) ALONG SOUTHBOUND MD 45 AND THE INSTALLATION OF A NEW HIB 100 FEET SOUTH OF BUNKER HILL ROAD. MD 45 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

SIGNAL OPERATION

1. NORMAL OPERATION

FITA - WILL OPERATE IN A FLASHING MODE.

HIB - WILL REMAIN DARK.

2. SPECIAL OPERATION

FITA - WILL OPERATE AS STATED ABOVE UNTIL A PUSHBUTTON IS ACTIVATED BY THE POINT CONTROL PERSON, AT WHICH TIME BOTH DIRECTIONS OF MD 45 WILL BE STOPPED.

HIB - DURING MORNING AND AFTERNOON WEEKDAY TIME PERIODS, THE HIB WILL OPERATE IN A FLASHING MODE.

CONTROLLER REQUIREMENTS

THE FITA AND HIB REQUIRE A FULL-TRAFFIC-ACTUATED, EIGHT PHASE CONTROLLER WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR SHALL PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THIS PROJECT:

STANDARD NO. MD-104.00 - 104.00-30  
STANDARD NO. MD 104.31-01 (FLAGGING OPERATION)  
STANDARD NO. MD 104.32-01 (INTERSECTION FLAGGING OPERATION)  
STANDARD NO. MD 104.33-01 (SHOULDER WORK)  
STANDARD NO. MD 104.35-01 (LANE SHIFT)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

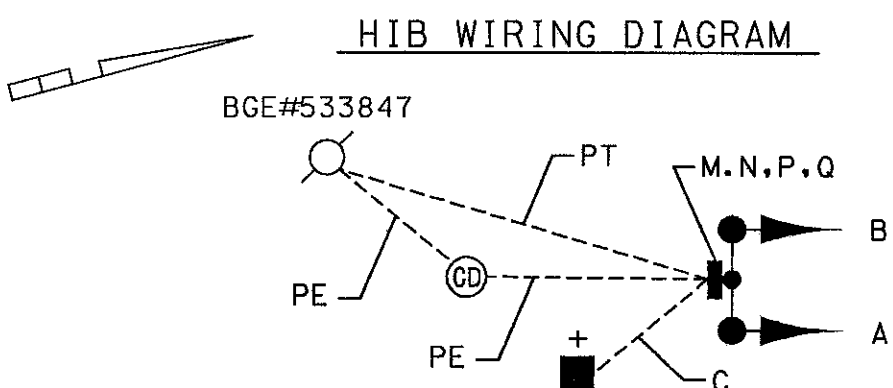
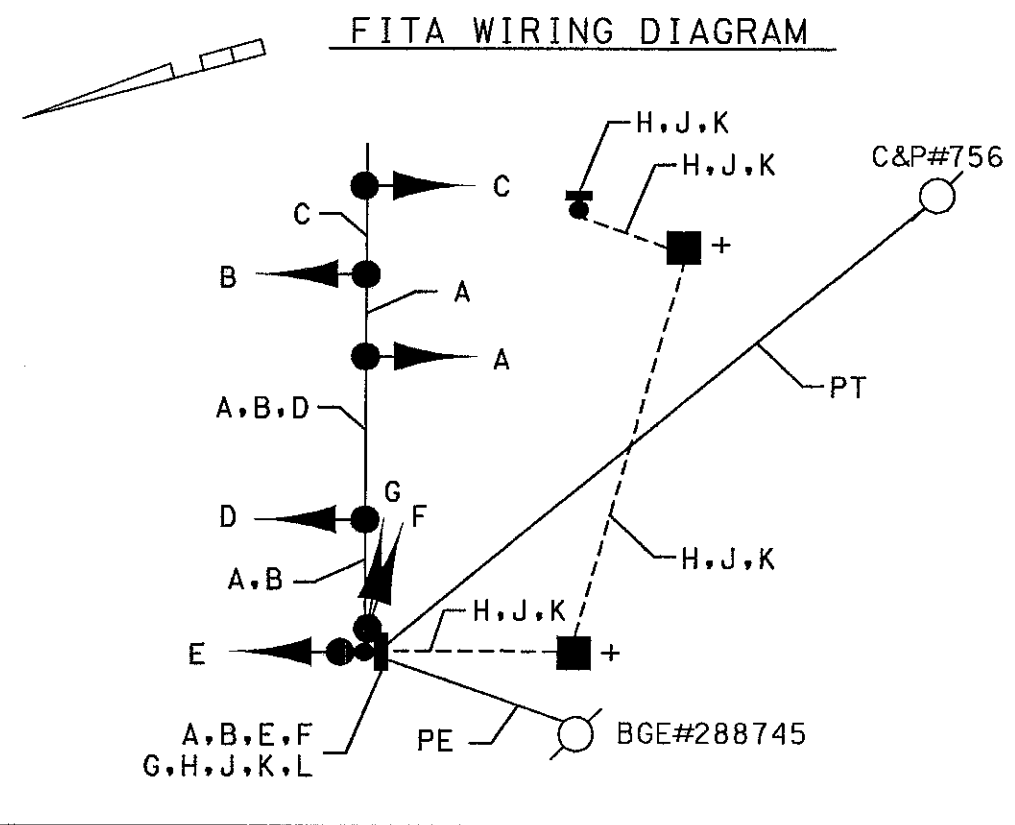
MR. RANDALL SCOTT  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 321-3514

MR. TERRY FAIRBAIRN  
DISTRICT UTILITIES ENGINEER (ACTING)  
PHONE: (410) 321-2843

MR. STEVE MARCISZEWSKI  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE (ACTING)  
PHONE: (410) 321-2764

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

WIRING DIAGRAMS



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
971016	2 EACH	EIGHT PHASE CONTROLLER AND CABINET - POLE MOUNT
973023	31 S.F.	SHEET ALUMINUM SIGNS
		- 2 EACH S1-1 SIGN (48 IN. X 48 IN.) - MAST ARM MOUNT
		- 1 EACH W20-7d SIGN (36 IN. X 36 IN.) - POLE MOUNT
		- 1 EACH S4-4 SIGN (36 IN. X 15 IN.) - POLE MOUNT
900000	1 EACH	TWIN STEEL POLE WITH A SINGLE 60 FOOT MAST ARM

GENERAL NOTES

- FINAL GEOMETRICS AND GRADES SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL SIGNAL EQUIPMENT SHALL BE INSTALLED TO FINAL GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES TO VERIFY THE LOCATION OF ALL UTILITIES.
- PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS SHALL BE INSTALLED AS PART OF THE HIGHWAY CONTRACT.
- WHEN INSTALLING THE SIGNAL HEADS, THE CONTRACTOR MUST LEAVE ENOUGH CABLE TO RELOCATE THEM FOR MAINTENANCE OF TRAFFIC.
- THE NEW FITA AND HIB SHALL NOT BE OPERATED UNTIL THE NEW MAIN ENTRANCE IS COMPLETED AND SCHOOL TRAFFIC IS USING THIS ENTRANCE.
- WHEN THE NEW FITA/HIB IS OPERATIONAL, THE OLD FITA/HIB CAN BE REMOVED.
- SHA FORCES SHALL REMOVE THE CONTROLLER AND AUXILIARY FROM THE CONTROLLER CABINETS. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASING CHARTS

FITA PHASING CHART

	1	2	3	4	5	6	7	
	(R)	(R)	(R)	(R)	(R)	(R)	(R)	
	(Y)	(Y)	(Y)	(Y)	(Y)			
	(Y)	(Y)	(Y)	(Y)	(Y)			
NORMAL OPERATION	8" FL/Y	8" FL/Y	8" FL/Y	8" FL/Y	8" FL/Y	FL/R	FL/R	←
SPECIAL OPERATION	QUICK 8" FL/Y	QUICK 8" FL/Y	QUICK 8" FL/Y	QUICK 8" FL/Y	QUICK 8" FL/Y	FL/R	FL/R	→
	12" Y	12" Y	12" Y	12" Y	12" Y	FL/R	FL/R	
	R FL/STROBE	R FL/STROBE	R FL/STROBE	R FL/STROBE	R FL/STROBE	FL/R	FL/R	

HIB PHASING CHART

	1	2
	(Y)	(Y)
NORMAL OPERATION	DARK	DARK
SPECIAL OPERATION	FL/Y	FL/Y

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR:

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
120500	2 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
203030	2 C.Y.	TEST PIT EXCAVATION
585624	60 L.F.	24 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
800000	1 EACH	FURNISH & INSTALL NEMA 3R-4A AUXILIARY CABINET
800000	1 EACH	RELOCATE PUSHBUTTON AND SIGNAL INDICATION FOR POINT CONTROL PERSON IN AUXILIARY CABINET
800000	L.S.	REMOVE & DISPOSE OF EXISTING EQUIPMENT
801004	15 C.Y.	FURNISH & INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	160 L.F.	FURNISH & INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
805135	125 L.F.	FURNISH & INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805210	60 L.F.	FURNISH & INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - DIRECTIONAL BORED
807202	1 EACH	FURNISH & INSTALL METERED SERVICE PEDESTAL POLE
807312	1 EACH	REMOVE ELECTRICAL SERVICE (CONDUITS, METER SOCKET, DISCONNECT SWITCH AND CABLE)
807400	1 EACH	ELECTRICAL UTILITIES SERVICE EQUIPMENT
811001	3 EACH	FURNISH & INSTALL ELECTRICAL HANDHOLE
813015	31 S.F.	INSTALL OVERHEAD SIGN
818010	2 EACH	FURNISH & INSTALL 14 FT. BREAKAWAY PEDESTAL
837001	3 EACH	FURNISH & INSTALL GROUND ROD - 3/4 IN. DIA. X 10 FT. LENGTH
860270	2 EACH	FURNISH & INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	7 EACH	FURNISH & INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	130 L.F.	FURNISH & INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	240 L.F.	FURNISH & INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	115 L.F.	FURNISH & INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861117	30 L.F.	FURNISH & INSTALL ELECTRICAL CABLE - 3 WIRE (NO. 4 AWG)
866204	1 EACH	INSTALL STEEL POLE AND SINGLE MAST ARM - ANY SIZE
871201	2 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT

NOTES:

- AUXILIARY CABINET SHALL BE A NEMA 3R-4X SMALL SINGLE DOOR ENCLOSURE WITH A LOCK NOT OPENED WITH A STANDARD NO. 2 KEY. CONTRACTOR SHALL DELIVER AUXILIARY CABINET TO SHA SIGNAL SHOP FOR MODIFICATION PRIOR TO INSTALLING.
- ANCHOR BOLTS ARE INCIDENTAL TO THE CONCRETE FOR SIGNAL FOUNDATION.

MTA  
McCormick, Taylor & Associates, Inc.

509 South Exeter Street  
4th Floor  
Baltimore, Maryland 21202  
(410) 662-7400



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

MD 45 (YORK ROAD) @

HEREFORD HIGH SCHOOL ENTRANCE

GENERAL INFORMATION - FITA & HIB

DRAWN BY: BSH	F.A.P. NO. SEE TITLE SHEET	TS NO.	SHEET NO. 29 OF 34
CHECKED BY: MAS	S.H.A. NO. BA7755130	T.I.M.S. NO.	
SCALE:	COUNTY: BALTIMORE	F481X	
DATE: AUGUST 2002	LOG MILE:		